

WHAT IS CLAIMED IS:

1. A method for processing an incoming package at an edge node,
comprising:
determining if enough space exists at a storage device of the edge node to
5 decompress the package;
if enough space does not exist, removing one or more previously stored files from
the storage device;
if enough space exists, either after the determining or after the removing of one or
more previously stored files, extracting a package information listing from the package;
10 analyzing the extracted package information listing to discover if the edge node is
an intended recipient of the package;
if the edge node is an intended recipient, ascertaining if the package is a content
package or a command package;
15 if the package is a command package, executing at least one command included in
the package; and
if the package is a content package, extracting the files and storing the files
contained in the package.

2. The method of claim 1, where the removal of one or more previously
20 stored files comprises:
identifying all previously stored files in the edge node's storage space that are
expired or marked for forced deletion; and

removing one or more identified files.

3. The method of claim 2, where the removal of one or more previously stored files comprises deleting all previously stored files in the edge node's storage space marked
5 for forced deletion.

4. The method of claim 3, where removing one or more previously stored files further comprises:

ascertaining whether the edge node has enough storage space to decompress the
10 package and if not then deleting one or more previously stored files in the edge node's storage space that are expired; and

iteratively performing the ascertaining and deleting of one or more previously stored files that are expired until the edge node has enough storage space to decompress the
15 package or no previously stored files that are expired exist.

5. The method of claim 1, where the package is a command package and is transmitted through a back channel.

6. The method of claim 1, where a message describing the status of the edge
20 node is transmitted to a NOC through a back channel connected the edge node and the NOC.

7. The method of claim 1, where the extracting of the files further includes entering information from the extracted files in a database.

8. The method of claim 1, where the package is a command package that includes a command to request for the edge node to upload its logs to a NOC.

9. The method of claim 1, where the package is a command package that includes a command to request for the edge node to update its operational software.

10. The method of claim 1, where the package is a command package that includes a deletion command and is sent from the NOC.

11. The method of claim 1, further comprising verifying successful receipt of the package prior to extracting the package information listing.

12. A system for processing a package at an edge node, comprising:
a storage device containing one or more previously stored files;
a database containing information related to the one or more previously stored files in the storage device; and
a data manager linked to the storage device and the database;
where the data manager determines if enough space exists at the storage device to decompress the package;

where, if there is not enough space, the data manager retrieves information related to the one or more previously stored files from the database and deletes one or more previously stored files based the retrieved information;

where, if there is enough space, the data manager extracts a package information listing from the package and analyzes the extracted package information listing to determine if the edge node is an intended recipient of the package;

where, if the edge node is an intended recipient, the data manager ascertains if the package is a content package or a command package;

where if the package is a command package, the data manager executes at least one command included in the package; and

where if the package is a content package, the data manager extracts the files contained in the package and stores the extracted files at the storage device.

13. The system of claim 12, where the storage device includes a shared storage device.

14. The system of claim 12, where the storage devices includes one or more computer servers.

15. The system of claim 12, where the information contained in the database related to the one or more previously stored files includes, for each previously stored file, an

indication of whether the respective previously stored file is marked for forced deletion and an indication of whether the respective previously stored file is expired.

16. The system of claim 15, where the data manager deletes one or more
5 previously stored files by removing each previously stored file having an indication that it is
marked for forced deletion, checking if there is enough space to decompress the package, and if
there is not, removing a previously stored file having an indication that it is expired, and
iteratively performing the checking and removing a previously stored file having an indication
that it is expired until there is enough space to decompress the package or no previously stored
10 file exists having an indication that it is expired.

17. The system of claim 15, further comprising a back channel connecting the
edge node and a NOC.

18. The system of claim 17, where the NOC transmits a command package to
15 the edge node through the back channel.

19. The system of claim 17, where the edge node transmits a message
describing its status to the NOC through the back channel.

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